

REMARKS

The specification stands objected to because the acronym "DE" is not defined the first time it is used, at p. 2, l. 9. The applicants have amended the specification to define DE and respectfully request that the examiner reconsider and withdraw the objection.

Claim 1 stands rejected under 35 U.S.C. 102(e) as being anticipated by Ohmi, U.S. Patent No. 5,936,787 ("Ohmi"). Applicants respectfully traverse this rejection because, as previously argued in applicants' Amendment A, Ohmi neither discloses nor suggests the "determining" or the "moving" features of claim 1 (which applicants have amended for clarity only, not for purposes of patentability).

The examiner states that write start sector place and time are inherently defined and writing starts accordingly in Ohmi. However, the examiner's citations to Ohmi (col. 9, lines 3-25; col. 9, line 66 to col. 10, line 27; and col. 2, line 66 to col. 3, line 9) do not disclose or suggest actions which explicitly or inherently disclose "determining the write start sector or the write end sector or the write start time or the write end time of each servo track based on said detected phase of the asynchronous continuous vibration," or any actions "based on said write start sector or said write end sector" as claimed by applicants, because the actions described in Ohmi at those citations are performed without reference to write start sector place and/or time.

FIGS. 7A and 7B (reproduced below) and the specification, p. 15, line 2 – p. 18, line 23, of the present application, illustrate the effects of the "determining" and "moving" steps of the present invention. FIG. 7A shows the misalignment between the write starting point and the write ending point of the servo track at the time of the STW operation,

without the present invention. In the presence of a continuous vibration of the spindle asynchronous with the rotation period of the disk medium 2, the head returns to the position indicated by the black circle, causing a misalignment D with the write starting point indicated by the white circle. See specification, p. 15, lines 2-18.

Fig. 7A

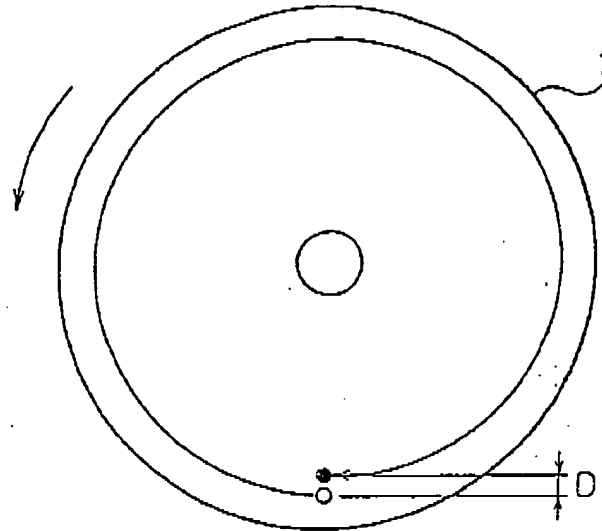


Fig. 7B

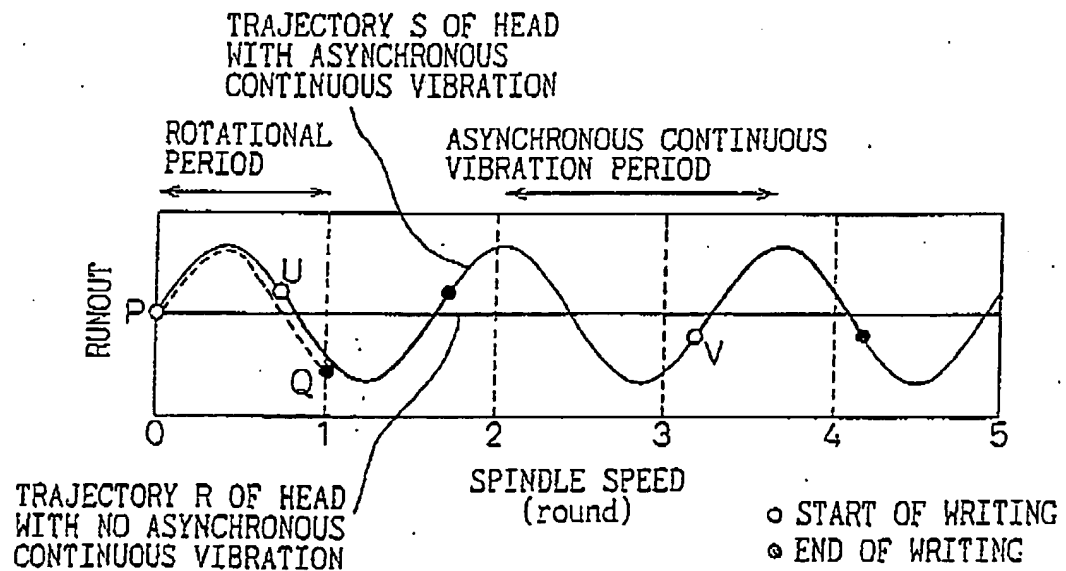


FIG. 7B compares the conventional STW method with the STW method according to the present invention in the presence of asynchronous continuous vibration. Misalignment results if the write operation of the servo track starts and ends, for example, at point P and at point Q, respectively. See specification, p. 15, lines 19-34. This misalignment may be eliminated by adjusting the displacement of the head trajectory S at the write ending point to coincide with the head trajectory S displacement at the write starting point, as shown for the writes starting at points U and V. See specification, p. 15, line 35 – p. 16, line 7, with a detailed explanation at p. 16, line 8 – p. 18, line 23. The present invention, including the “determining” and “moving” steps of applicants’ claim 1, eliminates this misalignment in the illustrated way.

In contrast, Ohmi discloses recording and reproducing data by, in part, detecting a vibration of the rotational driving mechanism of a disk recording medium, and driving a head according to a driving signal corrected according to the detected vibration. See, e.g., Ohmi, claim 5, steps (c)-(e). These actions described in Ohmi are performed without explicit or implicit reference to write start sector place and/or time.

Ohmi apparently discloses a spindle motor or an actuator that is driven by a driving signal with a correction signal to reduce the detected vibration. Accordingly, the information regarding the waveform of the vibration component of an apparatus for recording and reproducing data, such as the amplitude data and the phase data, is inevitable for Ohmi.

Contrary to this, only the phase data of the vibration component is necessary and the amplitude data is not necessary for the present invention. Accordingly, if Ohmi's disclosure (technique) were applied to the present invention, a slight deviation between the amplitude and the phase might have a negative influence on the control of the apparatus. For the above reason, control according to the present invention is more stable than Ohmi's control.

In response to paragraph 8 of the office action, applicants submit that the servo track writing aspect of claim 1 breathes life into the claim and is entitled to patentable weight. STW provides a meaningful context for the elements in the body of claim 1, particularly the determining and moving steps just discussed.

Applicants do not understand the examiner's remaining points in paragraph 8 of the office action, and respectfully request clarification. More specifically, applicants request clarification as to how Ohmi determines the write start or end sectors based on the phase of the asynchronous continuous vibration, or how Ohmi moves the head based on those write start or end sectors. Indeed, Ohmi seems to merely compensate for vibration, without using its phase to move the head to the write start or end sectors.

Ohmi does not disclose or suggest the claimed invention. Accordingly, applicants respectfully request that the examiner reconsider and withdraw the rejection of independent claim 1 under § 102(e).

Claim 2 stands objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim. Because claim 2 depends from claim 1, applicants respectfully request that the examiner reconsider and withdraw this objection.

For the foregoing reasons, applicants believe that this case is in condition for allowance, which is respectfully requested. The examiner should call applicants' attorney if an interview would expedite prosecution.

Respectfully submitted,

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